

**REMARKS**

This application contained claims 1-415, the status of which is as follows:

- (a) Claims 1, 9-12, 17, 26, 29, 31, 37-41, 45-46, 54, 57-58, 67-76, 79-80, 131-140, and 143-144 are as originally filed.
- (b) Claim 3 has been currently amended to correct a typographical error.
- (c) Claims 2, 4-8, 13-16, 18-25, 27-28, 30, 32-36, 42-44, 47-53, 55-56, 59-66, 77-78, 81-130, 141-142, and 145-406 have been canceled without prejudice. The Applicant intends to prosecute these claims in a continuation application.
- (d) Claims 407-415 are new.

No new matter has been added.

The Applicant is filing, on even date herewith, a petition pursuant to MPEP Section 708.02 VIII to accelerate examination of the above-referenced patent application.

Claims 407-415 are new. These new claims are supported in the Applicant's specification as follows. It is noted that only a single reference in the specification is provided, even for claims which find support in multiple references in the specification.

New claim(s)	Applicant's specification
<p>407 ("to configure the current so as to facilitate uptake, through the BBB, of a therapeutic agent for treating a medical condition, when the permeability of the BBB is increased")</p> <p>410 ("administering, to a systemic blood circulation of the patient, a therapeutic agent for treating a medical condition")</p>	<p>"In preferred embodiments of the present invention, an electrical stimulator drives current into the sphenopalatine ganglion (SPG) or into neural tracts originating or reaching the SPG. Typically, the stimulator drives the current in order to control and/or modify SPG-related behavior, e.g., in order to induce changes in cerebral blood flow and/or to modulate permeability of the blood-brain barrier (BBB). These embodiments may be used in many medical applications, such as, by way of illustration and not limitation . . . (c) the facilitation of drug transport across the BBB" (page 8, paragraph [0030]).</p>
408, 414 ("the condition includes a brain tumor")	<p>"In general, it is believed that substantially all pharmacological treatments aimed at cerebral cells for neurological and psychiatric disorders are amenable for use with these embodiments of the present invention. In particular, these embodiments may be adapted for use in the treatment of</p>

	<p>disorders such as brain tumors. . ." (page 12, paragraph [0041]).</p>
409 ("the drug includes large pharmaceutical molecules selected from the list consisting of: hydrophilic molecules having a molecular weight of greater than about 200 Da, and lipophilic molecules having a molecular weight of greater than about 500 Da")	<p>"The passage of certain molecules from cerebral blood vessels into the brain is hindered by the BBB. The endothelium of the capillaries, the plasma membrane of the blood vessels, and the foot processes of the astrocytes all impede uptake by the brain of the molecules. The BBB generally allows only small molecules (e.g., hydrophilic molecules of molecular weight less than about 200 Da, and lipophilic molecules of less than about 500 Da) to pass from the circulation into the brain.</p>
413 ("the therapeutic agent includes large pharmaceutical molecules selected from the list consisting of: hydrophilic molecules having a molecular weight of greater than about 200 Da, and lipophilic molecules having a molecular weight of greater than about 500 Da")	<p>"In accordance with a preferred embodiment of the present invention, parasympathetic activation induced by current from stimulator 4 overcomes the resistance to trans-BBB molecular movement generated by the endothelium of the cerebral capillaries and the plasma membrane. For some applications, therefore, stimulator 4 may be used to transiently remove a substantial</p>

	used to transiently remove a substantial obstacle to the passage of drugs from the blood to the brain" (page 24, paragraph [0080] – page 25, paragraph [0081]).
411 ("commencing administration of the therapeutic agent prior to initiating the application of the current")	"In this embodiment, a drug is administered to the patient at a constant rate, e.g., intravenously, prior to the initiation of stimulation of the SPG at time T1" (page 33, paragraph [0097]).
412 ("administering the therapeutic agent shortly after initiating the application of the current")	"Alternatively, for some applications it is desirable to give a single injection of a bolus of the drug shortly before or after initiation of stimulation of the SPG" (page 34, paragraph [0097]).
415 ("the therapeutic agent includes a chemotherapeutic drug")	"Embodiments of the present invention have many medical applications. For example, chemotherapeutic drugs need to pass into cerebral tissue in order to treat brain tumors" (page 42, paragraph [0110]).

Notice of allowance of the present application is respectfully requested.

If the Examiner has any questions he is invited to contact the undersigned at 202-628-5197.

Respectfully submitted,

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